

REMARKS

Claims 1-16 are pending and all stand rejected. Applicant has canceled claims 1-5 and respectfully submits that claims 6-16 are allowable for as set forth below.

In the action, the Examiner has rejected Claims 1-9 and 12-16 under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art ("APA") in view of *Smith* et al. (U.S. Publication 2001/0047263). The cancellation of claims 1-5 renders the rejection of those five claims moot; Applicant respectfully reverses the rejection of claims 6-9 and 12-16.

Independent claim 6 includes, among other things, the features of

a timer module which operates simultaneously with operation of said semantic recognition module in the enabled mode so as to calculate an idle time between a current input voice signal and a previous input voice signal, and so as to determine whether the idle time calculated thereby is larger than a predetermined threshold; and

a mode switching module coupled to said timer module and said detecting module, said mode switching module enabling said detecting module to switch operation of said semantic recognition module from the enabled mode back to the disabled mode upon detection by said timer module that the idle time between the current input voice signal and the previous input voice signal is larger than the predetermined threshold.

As the Examiner notes, these features are not present in APA. Indeed, as disclosed in lines 9-16 on page 3 of the specification (i.e., the APA), a confirmation procedure is required in the Talk-to-Talk mode, which involves the presence of a keyword in an issued voice command so as to minimize occurrence of unwanted responses. Thus, the APA only teaches a detecting module capable of controlling the semantic recognition module to operate in an enabled mode upon detection of a predetermined keyword, but not to switch operation to a disabled mode in response to a command from a mode switching module as recited in Claim 6.

In addition, the above-discussed features, present in claim but missing from APA, are not disclosed or suggested by *Smith*. 5. According to paragraphs [0056]–[0060] on page 4 of the specification of *Smith*, with reference to FIG. 6, a phone system 1100 awaits an attention word, such as a verbal keyword (step 600). Once the attention word is recognized, the system 1100 presents various operation choices for selection by the user (step 615). Subsequently, the system

1100 enters a wait state waiting for a selection command (step 620). If, after a predetermined amount of time, no command is received from the user (step 650), the system 1100 will remind the user to provide a command (655). If no command is received again within the predetermined amount of time (step 650), the system 1100 will go back to step 600 to await another attention word.

Thus, the invention claimed in claim 6 is patentably distinguishable from *Smith* in a number of respects. First, the invention claimed in claim 6 enables on a process of conducting successive semantic recognition without having to have the keyword present every time a command is issued. In other words, the invention overcomes the drawback of the APA, where a keyword must be present in each command for activating the voice interactive system. With claimed invention, it only takes a single keyword input to switch the voice interactive system to the enabled mode, and when the voice interactive system operates in the enabled mode, it is no longer necessary for the user to utter the keyword when interacting with an electronic device incorporating the voice interactive system. In contrast, the cited reference primarily focuses on a process of communicating with a user, where voice recognition of an attention word is used merely to initiate a process of providing options to the user and waiting for a selected option from the use. This is different from the feature of successive semantic recognition without having to have the keyword present in every command of the present invention.

Second, in the invention of claim 6, the idle time is calculated between a current input voice signal and a previous input voice signal, both of which are commands issued for the voice interactive system to perform specific functions, and both of which are commands to have semantic recognition performed thereupon by the semantic recognition module. Only if the idle time is larger than the predetermined threshold is the semantic recognition module switched to operate from the enabled mode back to the disabled mode, such that a subsequent input voice signal need to have a keyword therein so as to switch the semantic recognition module back to operation in the enabled mode. Otherwise, after the semantic recognition module is switched to operate in the enabled mode (upon a detected keyword), the keyword does not have to be present in subsequent input voice signals as long as the time between each pair of successive input voice signals is less than the predetermined threshold. Therefore, the calculation of the idle time of the present invention serves to determine whether the predetermined keyword needs to be present in a subsequent input voice signal. On the contrary, the wait state entered by the system 1100 of

Smith lasts between the recognition of the attention word and a command issued to the system 1100, not between two commands issued to the system 1100. In other words, in *Smith*, an input voice signal consists of two separate components, one of which is a keyword component, and the other of which is a command component issued to the semantic recognition module. The wait state lasts between the recognition of the keyword component and the reception of the command component. If no command component is received after a predetermined amount of time, the wait state is terminated and the system 1100 goes back to wait for another keyword component. Therefore, the wait state of *Smith* serves to determine how long the system should wait for a command component corresponding to the keyword component.

Third, in the invention of claim 6, during the calculation of the idle time in the present invention, the semantic recognition module remains enabled, and performs semantic recognition upon a current input voice signal. In other words, the calculation of the idle time and the semantic recognition of the current input voice signal are performed simultaneously. In contrast, during the wait state of the cited reference, other than waiting for a command, the system 1100 does not perform other functions.

Lastly, the detecting module of the invention of claim 6 not only controls the semantic recognition module to switch from the disabled mode to the enabled mode in response to (1) the presence of the predetermined keyword, but also controls operation of the semantic recognition module to switch from the enabled mode to the disabled mode upon (2) a command from the mode switching module. *Smith* does not disclose or suggest this feature.

Thus, even if APA and *Smith* could be legitimately combined as proposed by the Examiner, the combination would not disclose or suggest every limitation of claim 6. For at least this reason, the Applicant respectfully requests the withdrawal of the rejection of claim 6, as well the dependent claims 7-9, for obviousness. *See, MPEP* 2143.3.

As to claims 12-16, each of the independent claims 12 and 13 contains similar limitations discussed above as missing from both APA and *Smith*. Thus, even if APA and *Smith* could be legitimately combined as proposed by the Examiner, the combination would not disclose or suggest every limitation of claim 12 or claim 13. For at least this reason, the Applicant respectfully requests the withdrawal of the rejection of claims 12 and 13, as well the dependent claims 14-16, for obviousness. *See, MPEP* 2143.3.

The Examiner has further rejected claims 10 and 11 under 35 U.S.C. 103(a) as being unpatentable over APA in view of *Smith* and further in view of *Bellegarda* et al. (U.S. Patent 6,285,785). The Applicant respectfully traverses.

Each of claims 10 and 11 ultimately depends on independent claim 6, which, as discussed above, contains limitations that are missing from both APA and *Smith*. *Bellegarda* fails to supply the missing limitations. Thus, even if all three references could be legitimately combined as proposed by the Examiner, the combination would not disclose or suggest every limitation of claim 10 or claim 11. For at least this reason, the Applicant respectfully requests the withdrawal of the rejection of claims 12 and 13, as well the dependent claims 14-16, for obviousness. *See, MPEP* 2143.3.

SUMMARY

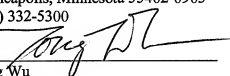
In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.



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Respectfully submitted,

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